

## Rabin Singh

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### EDUCATION

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**St. Joseph's University**, New York City, NY

Expected May 2025

B.S. Mathematics and Computer Science | GPA 3.8

- **Relevant Coursework** - Algorithms and Data Structures, Cryptography, R, Advanced Programming, Advanced Database Design, Data Science, Calculus III, Linear Algebra, Differential Equations, Probability and Statistics

### WORK EXPERIENCE

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**SURF Researcher – DeFi Risk & Reward Modelling**, *New York City, NY*

Apr 2024 – Present

- Develop a risk-reward framework for DeFi protocols, designed to help users identify high-potential projects while avoiding scams and pump-and-dump schemes
- Calculate risk and reward metrics (volatility, Sharpe ratio, maximum drawdown, APY, ROI, TVL growth rate); cleaned API data and developed a quantitative model in Python; created the report using LaTeX

**IT Intern | NYC Housing Authority**, *New York City, NY*

June 2024 – Aug 2024

- Utilized ServiceNow to implement ITILv4 principles, reducing incident response times by 15% through optimized ticket handling and workflow automation
- Developed documentation for team productivity, ensuring streamlined operations and faster problem resolution

**Sales Representative | Freedom Pros**, *Columbus, OH*

May 2024 – June 2024

- Achieved 30 monthly sales and recognition as the top sales representative nationwide for June among 2000+ peers

**Mathematics Interpreter | National Museum of Mathematics** *New York City, NY*

June 2023 – Sep 2023

- Investigated fractal and Fibonacci sequences to incorporate into exhibit content and educational programming
- Simplified complex math concepts for diverse audiences, boosting visitor understanding and enjoyment

**Web and Data Analytics Intern | Nepal Tea Collective** *New York City, NY*

May 2022 – June 2023

- Revitalized the firm's website by using Shopify Liquid to implement dynamic components and generate actionable insights analyzing annual order data using Tidyverse (R Studio), resulting in a 40% growth in conversion rates

### PROJECTS / PROFESSIONAL DEVELOPMENT

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**Microsoft Imagine Cup**

Oct 2023 – Present

- Led a team through Microsoft's global tech start-up competition and shaped the business model for "The Intelligent AI-dvisor", an AI companion to support high school students' academic and professional needs
- Fine-tuned ChatGPT API to improve the personalization of the responses generated using TensorFlow

**STO Trading Competition**

Oct 2023

- Earned 2<sup>nd</sup> place representing SJNY in the university trading challenge hosted by the Social Trade Organization, showcasing exceptional market insights and strategic investment decision-making

**Hospital Appointment Scheduling Application**

Sep 2023 – Jan 2024

- Created an appointment scheduling app with role-based interfaces that syncs across portals to prevent scheduling conflicts.
- Implemented Java Swing GUI components and JDBC classes for CRUD operations, user authentication, and role-based authorization, resulting in seamless integration with a MySQL database managed by XAMPP.
- Applied the Model-View-Controller (MVC) design pattern and modular programming to enhance code quality, maintainability, and development efficiency.

### SKILLS/ INTERESTS

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**Languages and Tools:** Python | R | Java | Visual Basic | C# | JavaScript/HTML5/CSS3 | SQL | Git | Jira | ServiceNow

**Libraries and Frameworks:** Tidyverse | TensorFlow | NumPy | .NET | SQLAlchemy | Pandas | Matplotlib | Seaborn

**Interests :** Blockchain | Web3 | Informed Investing | Sustainability | Quantitative Research | AI | Predictive Modeling

**Honors:** Citi Quantitative Analysis Fellow | Apple Pathways Scholar | Young Entrepreneur Award | America Needs You Fellow | Ladders for Leaders Fellow | Circl Leadership | Codepath's Advanced Programming Fellow | SURF Fellow